

Amendments to the Claims:

1. (Currently amended) A support structure having a seat surface, particularly for bicycles and other pedal operated machines, comprising a substantially rigid or semirigid frame, means for securing said frame to the bicycle or a pedal operated machine, a yieldable pad secured to the top face of said frame, a covering layer superimposed to the yieldable pad, said frame has one or more ~~differential rigidity~~ portions having a rigidity that is different from the rigidity of the remaining frame portions and that is adapted to facilitate the pedaling motion impart local flexibility, said differential rigidity portions being located in the proximity of an outer peripheral edge of said frame, ~~characterized in that~~ wherein said frame has at least one recess along its outer peripheral edge, each of said differential rigidity portions comprising a plurality of elongated projections extending outwards from their respective recesses formed in said frame.

2. (Previously presented) Support structure as claimed in claim 1, wherein said projections have free ends.

3. (Previously presented) Support structure as claimed in claim 2, wherein said projections of each of said differential rigidity portions extend substantially parallel to one another so as to form a comblike structure.

4. (Previously presented) Support structure as claimed in claim 3, wherein each of said projections of each of said differential rigidity portions is located at a predetermined distance (H) from the other projections adjacent thereto, which distance may vary for each projection.

5. (Previously presented) Support structure as claimed in claim 4, wherein each of said differential rigidity portions comprises filling elements within the spaces between said projections.

6. (Previously presented) Support structure as claimed in claim 5, wherein the base material of said filling elements is a plastic and/or elastomeric material.

7. (Previously presented) Support structure as claimed in claim 6, wherein the free ends of said projections are substantially aligned to define an edge which is connected with said outer peripheral edge of said frame.

8. (Currently amended) Support structure as claimed in claim 1, wherein each of said projections has a cross section and shape as to provide a predetermined flexural and shear strength depending on the relative to load activity in a defined direction.

9. (Previously presented) Support structure as claimed in claim 8, wherein each of said projections has such a cross section and shape as to provide a predetermined flexural and shear strength, relative to load activity both substantially normal to said seat surface, and along a plane substantially parallel to the seat surface.

10. (Previously presented) Support structure as claimed in claim 1, wherein said projections are monolithic with said frame.

11. (Previously presented) Support structure as claimed in claim 1, wherein said frame has a laterally widened rear portion for supporting the buttocks of a user and an elongated front portion defining a longitudinal axis (L).

12. (Previously presented) Support structure as claimed in claim 1, wherein it comprises at least one pair of said differential rigidity portions, symmetrically located with respect to said longitudinal axis (L).

13. (Previously presented) Support structure as claimed in claim 12, wherein said

symmetric pair of differential rigidity portions is located at the sides of said widened rear portion and/or at the junction between said widened rear portion and said elongated front portion.

14. (Previously presented) Support structure as claimed in claim 13, wherein at least one of said differential rigidity portions is located on the rear edge of said widened rear portion.

15. (Previously presented) Support structure as claimed in claim 1, wherein said yieldable pad and/or said covering layer have such an extension as to wholly or partly cover said differential rigidity portions.

16. (New) A support structure comprising a substantially rigid or semirigid frame having one or more portions with a rigidity that is different from the rigidity of the remaining frame portions and that are adapted to impart local flexibility, wherein said frame includes at least one recess along its outer peripheral edge, and wherein said differential rigidity portions comprise a plurality of elongated projections extending outwards from their respective recesses formed in said frame and having free ends.

17. (New) Support structure as claimed in claim 16, wherein said projections of each of said differential rigidity portions extend substantially parallel to one another so as to form a comblike structure.

18. (New) Support structure as claimed in claim 16, wherein each of said differential rigidity portions comprises filling elements within the spaces between said projections.

19. (New) Support structure as claimed in claim 18, wherein the base material of said filling elements is a plastic and/or elastomeric material.

20. (New) Support structure as claimed in claim 16, wherein the free ends of said projections are substantially aligned to define an edge which is connected with said outer peripheral edge of said frame.